EIIS Incident Report
Part A: General Information

Incident ID
I026241-001

County: Kern	**Incident Date:** 3/3/2014 **through**	**Year:**	
State: CA	**Total Number:**	**Case #:**	
Country: USA	**Total Magnitude:** 244 of 460 affected	**Weather:**	

Incident Type

☐ Aqua. Animal ☑ Terr. Animal ☐ Field Study
☐ Aqua. Plant ☐ Terr. Plant

Created: 4/8/2014
Updated: 6/3/2014

Abstract:

On Tuesday, March 11, 2014, a bee kill incident report was received from a beekeeper in Kern County (in the vicinity of Blackwells Corner), California. The beekeeper was on contract to Sandridge Partners almond - orchards, and he reported having 460 colonies located in clusters of 24 colonies at different locations within the orchards. Fungicide applications were made to the orchard during the period before full bloom while the bees were in the orchard, and these were followed by later applications of an insecticide.

Around February 10 and again around February 19 the fungicide Protocol® (dual actives: thiophanate methyl and propiconazole) was applied by ground equipment to blooming almond trees. Around February 22, the insecticide Tourismo® (dual actives: flubendiamide and buprofezin) was applied by ground equipment to almond trees during full bloom while bees were foraging. On Monday, March 3, the beekeeper noticed piles of newly emerged bees at the entrance to the colonies. The beekeeper indicated that "brood damage include[d] bees emerging with proboscis extended, deformed abdomens, deformed wings, or no wings. Such bees [were] scattered up to 50 feet or more from the hives.

The adult population of the hives is now dropping off because the brood is not healthy." According to the beekeeper, the brood pattern on the combs of affected colonies looked good although it was little spotty; however, only a small cluster of hive bees remained along with their respective queen in 216 of his colonies, and he considered these as units that would not be profitable to operate for the next 6 to

Reports

Package #	Incident #	Source	Report Date
026241	001	California Bee Company	3/11/2014
026333	008	Sacamento, CA EPA Office of Pesticide Regulation	

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Part B: Pesticide Information

I026241-001

County: Kern **State:** CA **Date:** 3/3/2014

Pesticide: **Buprofezin (275100)** **Type:**

Use Site:

Product: Tourismo **Appl. Method:** **Appl. Rate:**

Formulation: **Air/Ground:** Air **Legality:** Undetermined

Certainty: Possible

It is possible an application of a tank mix of the fungicide Protocol (thiophanate methyl and propiconazole) and the insecticide Tourismo (flubendiamide and buprofezin) to almond orchards during resulted in the deaths foraging bees. Buprofezin is an insect growth regulator which may explain the damage to the brood.

Pesticide: **Flubendiamide (027602)** **Type:** I

Use Site:

Product: Tourismo **Appl. Method:** **Appl. Rate:**

Formulation: **Air/Ground:** Air **Legality:** Undetermined

Certainty: Possible

It is possible an application of a tank mix of the fungicide Protocol (thiophanate methyl and propiconazole) and the insecticide Tourismo (flubendiamide and buprofezin) to almond orchards during resulted in the deaths foraging bees. Flubendiamide is practically non-toxi to bees on an acute basis (> 20 ug/bee).

Pesticide: **Propiconazole (122101)** **Type:** F

Use Site:

Product: Protocol **Appl. Method:** **Appl. Rate:**

Formulation: **Air/Ground:** Air **Legality:** Undetermined

Certainty: Possible

It is possible an application of a tank mix of the fungicide Protocol (thiophanate methyl and propiconazole) and the insecticide Tourismo (flubendiamide and buprofezin) to almond orchards during resulted in the deaths foraging bees. Is practically nontoxic to honey bees; 48 hr LD 50 > 25 ug/bee.

Pesticide: **Thiophanate-methyl (102001)** **Type:** F

Use Site:

Product: Protocol **Appl. Method:** **Appl. Rate:**

Formulation: **Air/Ground:** Air **Legality:** Undetermined

Certainty: Possible

It is possible an application of a tank mix of the fungicide Protocol (thiophanate methyl and propiconazole) and the insecticide Tourismo (flubendiamide and buprofezin) to almond orchards during resulted in the deaths foraging bees.

EIIS Incident Report
Part C: Species Information

I026241-001

County: Kern **State:** CA **Date:** 3/3/2014

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Species: **Honey bee**
Sci. Name: Apis millifera
Taxon: Insect
Age:

Response: Mortality
Magnitude: 244 of 460
Habitat: N/R
Distance: Vicinity
Rt. of Exposure: N/R

Necropsy

Number:
Condition:

Cholinesterase

Number:
Activity: um/g/min
Percent of Normal

Tissue Residues

Sample Type	PC Code	Pesticide	N	Conc. (ppm)
No Data				-

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Part D: Environmental Measurements

County: State: Date:

Common Name	PC Code	Degredate

		Min.	Max.	N	LOD
Concentrations in ppb	Water				
	Soil				
	Sediment				
	Foliage				

	Description	Concentration	N	LOD
Other Samples				

Dissolved Oxygen (ppm) to pH to